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Dixie J. Koo, Dale D. Chitwood and Jesús Sánchez

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VIOLENT VICTIMIZATION AND THE ROUTINE ACTIVITIES/LIFESTYLE OF ACTIVE DRUG USERS

DIXIE J. KOO, DALE D. CHITWOOD, JESÚS SÁNCHEZ

The present study examines violent victimization among a sample of active drug users. Two theoretical perspectives are combined to form the underlying conceptual framework of the study: One draws upon routine activities/lifestyle theory and the other incorporates the street addict role theory. While routine activities/lifestyle theory addresses victimization in general, the street addict role theory explains the specific lifestyle characteristics of an active drug abuser which are relevant to the victimization of illicit drug users. We find the prevalence of violent victimization to be high. Approximately 22% of respondents reported being victimized within a 30 day period. We also find support for combining the two perspectives to help explain violent victimization. Demographic, personal networks, drug use, and street business domain factors are associated with violent victimization for this high risk population. Our study extends the investigation of violent victimization among illicit drug users by identifying characteristics that differentiate drug users who are recent victims of violence from others who have not been similarly victimized.

INTRODUCTION

Violence and drug abuse are major social and public health issues for the United States (Anthony & Forman, 2003; Centers for Disease Control and Prevention, 2007; Inciardi, 1981; McBride, VanderWaal, & Terry-McElrath, 2003; National Institute on Drug Abuse, 2007; Nurco, Kinlock, & Hanlon, 1995).

Dixie J. Koo, Ph.D., is an Assistant Professor in the Division of Politics, Administration and Justice at California State University, Fullerton. Her research interests include areas of substance use, HIV/AIDS, violence, and victimization. **Dale D. Chitwood**, Ph.D., is a Professor in the Department of Sociology at the University of Miami with secondary appointments in the Departments of Epidemiology & Public Health and Psychiatry & Behavioral Sciences within the School of Medicine. He has conducted research on drug abuse for the past 30 years, and since 1986 has been studying the relationship between HIV/AIDS and illicit drugs. **Jesús Sánchez**, Ph.D., is an Assistant Professor in the Department of Health Promotion and Disease Prevention at the Robert Stempel School of Public Health at Florida International University. His research interests include HIV/AIDS, substance abuse, and minority health. He is currently conducting a study funded by the National Center on Minority Health and Health Disparities titled "HIV Risk Reduction in High Risk Hispanic Migrant Workers in South Florida."

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A substantial portion of the violence today is attributed to drug-trafficking and substance abuse, and criminal victimization associated with substance use is a serious concern (Goldstein, 1989; MacCoun, Kilmer, & Reuter, 2003; Office of National Drug Control Policy, 1995; Office for Victims of Crime, 1996). Drug-related activities and drug use can increase official rates of serious violence that result in injury and death.

While some may believe that violent incidents, including drug-related violence, are unpredictable events which happen primarily to law-abiding citizens, this is a misconception. All people are not at equal risk of violent victimization, drug-related or otherwise, and substantial differences in risk exist across various segments of the population (Bureau of Justice Statistics, 2006; Cohen, Kleugel, & Land, 1981; Gottfredson, 1984; Hindelang, Gottfredson, & Garofalo, 1978; Johnson, Williams, Dei, & Sanabria, 1990; Klevens, Duque, & Ramirez, 2002; Miethe & Meier, 1994; Wittebrood & Nieuwbeerta, 2000). Drug offenders are one of the groups that are likely to experience violent victimization (Bourgois, 1995; Fattah, 1993; Goldstein, Bellucci, Spunt, & Miller, 1991; Inciardi, 1990; Inciardi & Pottieger, 1994; Jacobs, 2000; Klevens et al., 2002; McCoy, Messiah, & Yu, 2001; McElrath, Chitwood, & Comerford, 1997; Stewart, Elifson, & Sterk, 2004; Wittebrood & Nieuwbeerta, 1999, 2000).

Although most research on drugs, violence, and victimization has focused primarily on active drug users as perpetrators of crime (MacCoun et al., 2003), a small number of studies have begun to examine violent victimization among active users of illicit drugs. These studies have found that the prevalence of violent victimization is high (Inciardi, 1990; McCoy et al., 2001; McElrath et al., 1997; Stewart et al., 2004), and that violent victimization rates are substantially higher among active illicit drug users than for either the general urban population (McElrath et al., 1997) or for nonusers who were recruited from the same ecological regions as the drug users (McCoy et al., 2001). Our investigation builds upon these studies and extends previous research by integrating two theoretical perspectives to examine violent victimization among active drug users. An integrated theoretical perspective extends the existing research on the study of victimization in general and victimization within marginalized sub-groups like illicit drug users in particular.

The main objectives of this paper are (a) to estimate the prevalence of violent victimization among a sample of high-risk active drug users, and (b) guided by a combined theoretical framework, to examine the association of demographic, personal networks, drug use, and street business domain factors with violent victimization. Two theoretical perspectives are combined to form the underlying conceptual framework of the study: One draws upon the routine activities/lifestyles

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theory that frequently has been applied to victimization research (Cohen & Felson, 1979; Garofalo, 1987; Hindelang et al., 1978) and the other incorporates the street addict role theory that was developed to explain the lifestyle of street-based heroin addicts (Stephens, 1991).

The premises of these theoretical perspectives are complementary. Routine activities/lifestyle theory addresses victimization in general and the street addict role theory provides the specific lifestyle characteristics of an active drug abuser that are relevant to the victimization of illicit drug users. The combination of the routine activities/lifestyle and street addict role theoretical perspectives supplies a more specified conceptual framework for understanding violent victimization among active illicit drug users. The purpose of combining these two noncompeting theories is not to test which theory serves as a better explanatory model, but to provide a theoretically linked context to identify how the street addict subcultural complex and the lifestyle of active drug users influence their risk levels for violent victimization.

THEORETICAL FRAMEWORK***ROUTINE ACTIVITIES/LIFESTYLE THEORY***

The most prominent theoretical developments to occur in the area of victimization are the routine activities (Cohen & Felson, 1979; Felson, 1998) and lifestyle (Garofalo, 1987; Hindelang et al., 1978) perspectives, which emphasize how the context or situation influences vulnerability to crime (Schreck, Wright, & Miller, 2002). The main proposition of routine activities/lifestyle theory predicts that when a motivated offender converges in time and space with an attractive or suitable and unguarded target, the risk of victimization increases (Cohen & Felson, 1979; Felson, 1998; Garofalo, 1987; Hindelang et al., 1978). Routine activities and lifestyle theories are based on two underlying assumptions (Miethe & Meier, 1990; Wittebrood & Nieuwbeerta, 2000). First, routine activities and lifestyle patterns are assumed to create a criminal opportunity structure when they increase contact between potential offenders and victims. Second, the subjective value of a target and its level of guardianship are assumed to determine the choice of the particular crime victim. These assumptions imply that the role expectations and behaviors associated with various demographic and social groups are essential aspects that expand our understanding of victimization.

Victims and offenders often are part of the same homogenous population and share demographic similarities. The “principle of homogamy,” derived from routine activities/lifestyle theory, suggests that people who share similar demographic and social profiles with potential offenders are more likely to come into contact with offenders and consequently run a higher risk of violent victimization (Cohen

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et al., 1981; Hindelang et al., 1978; Jensen & Brownfield, 1986; Sampson & Lauritsen, 1990). For example, individuals visiting or residing in areas with large populations of potential offenders are more likely than members of other groups to come into frequent contact with these offenders, which in turn increases the likelihood of victimization (Gottfredson, 1984; Miethe & Meier, 1994; Wikstrom, 1991; Wittebrood & Nieuwbeerta, 1999, 2000). Researchers further suggest that the similarities that are shared by victims and offenders exist because offenders and victims are often one and the same (Jensen & Brownfield, 1986; Mustaine & Tewksbury, 1998; Sampson & Lauritsen, 1990; Singer, 1981, 1986; Zhang, Welte, & Wieczorek, 2001). Several studies have found a positive relationship between various types of offending, such as violent, property, and/or drug use, and violent victimization (Gottfredson, 1984; Jensen & Brownfield, 1986; Lauritsen, Sampson, & Laub, 1991; Miethe & Meier, 1994; Sampson & Lauritsen, 1990; Singer, 1981, 1986). People who reported involvement in deviant behaviors were more likely than those not involved in deviant behaviors to be victimized, which suggests that the link between victimization and offending exists because offenders and victims have comparable lifestyles (Fagen, Piper, & Cheng, 1987; Gottfredson, 1984; Jensen & Brownfield, 1986; Lauritsen et al., 1991; Lauritsen, Laub, & Sampson, 1992; Sampson & Lauritsen, 1990; Singer 1981, 1986).

Multiple studies have identified specific qualities of lifestyles that heighten vulnerability to victimization. Nightly leisure activities, spending time with deviant peer groups, and participating in deviant conduct are viewed as important features of lifestyles that greatly increase the risk of becoming a victim of violence (Felson, 1997; Gottfredson, 1984; Jensen & Brownfield, 1986; Lauritsen et al., 1991, 1992; Sampson & Lauritsen, 1990; Wittebrood & Nieuwbeerta, 2000). Jensen and Brownfield (1986) suggest that involvement in criminal activities may be the most “victim prone” of all lifestyles. Participation in criminal activities can make an individual more susceptible to victimization because of the nature of the offending behavior itself, the increased contact with other offenders, the lowered chance of victims calling the police or being believed if they do call, and the tendency of offenders to engage in activities that lower their guardianship potential, such as being intoxicated (Cohen et al., 1981; Hindelang et al., 1978; Jensen & Brownfield, 1986; Lauritsen et al., 1991; Miethe & Meier, 1994; Sampson & Lauritsen, 1990).

Critiques of existing applications of routine activities/lifestyle theory suggest that more direct measures of lifestyle such as with whom, where, when, and how people spend their time would contribute more to the understanding of victimization than primarily relying on proxy measures of lifestyle such as demographic characteristics (Jensen & Brownfield, 1986; Miethe & Meier, 1990; Mustaine & Tewksbury, 1998). Since active drug users are part of a unique subculture (Preble & Casey, 1969;

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Stephens, 1991), the analysis of the victim-offender relationship among illicit drug users ideally should focus on the events that best characterize the routine activities/lifestyle of that group. From this perspective, illegal activities of drug users can be understood as behaviors that are routine activities of persons who use illicit drugs (Cohen & Felson, 1979; Felson, 1986; Felson, 1997). The use of the Street Addict Role theory (Stephens, 1991) to “flesh out” the specific routine activities of active users of illicit drugs enables us to use direct measures of lifestyle for this population.

STREET ADDICT ROLE THEORY: THE SUBCULTURE OF STREET ADDICTS

The street addict role theory by Stephens (1991) is a sociocultural explanation of the lifestyle of a street addict. Stephens’ perspective was developed for persons who primarily use heroin, but most also are considered “poly-drug abusers” since they often use multiple types of drugs (Chaiken & Chaiken, 1990). The street addict subcultural complex is characterized as a tightly knit world which revolves around the use of heroin and other illicit drugs. A hierarchy of statuses exists within this subculture that is based upon conning (i.e., to skillfully trick others into providing money and/or drugs), hustling abilities, criminal activities, an intense interest in drugs, and drug consumption patterns. Two activities dominate the lives of heroin street addicts: (1) copping—the searching for and obtaining heroin and (2) hustling—the often illegal quest for money to purchase drugs and provide living expenses.

The structure of the values in the street addict subculture corresponds to the role requirements and expectations of the street addict. The value system of the subculture includes an anti-societal viewpoint (people are viewed as basically dishonest and egocentric), rejection of middle-class values (devalues the ideals of routine work, honesty, security), a high value on excitement and hedonism (fast life, pursuit of immediate gratification, little thought to the future), the importance of outward appearance (money, clothes, materialistic goods) for one’s self-image, involvement in the street addict subculture (including the importance of addict friends), and being a “cool cat” (emotional aloofness). This set of rules, norms, and values of the street addict subcultural complex supports the scheming and proscribed behaviors of addicts. As the street addict role increasingly becomes the master/primary role for an addict, the behaviors of the addict increasingly revolve around and are determined by this role. According to Stephens (1991), the street addict role may fill the gaps in a life of limited activity that is the result of chronic unemployment, inadequate educational opportunities, and few meaningful social roles.

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Many active drug users are enmeshed solidly within the street lifestyle of copping, conning, and hustling, which includes the commission of criminal activities (Inciardi

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& Pottieger, 1994). Street addicts consume large quantities of drugs and maintaining the habit is expensive and often difficult (Stephens, 1991). Heroin addicts commit an extensive amount of crime (Anglin & Perrochet, 1998; Ball, 1991; Ball, Rosen, Flueck, & Nurco, 1981, 1982; Ball et al., 1983; Nurco, Hanlon, Balter, Kinlock, & Slaughter, 1991; Nurco et al., 1995; Speckart & Anglin, 1986), and may engage in multiple types of criminal behaviors in a given day (Stephens, 1991). Most of these criminal activities are property crimes or involvement in the drug trade (Ball, 1991; Ball, Shaffer, & Nurco, 1983; Nurco et al., 1991; Speckart & Anglin, 1986).

The active drug user interacts frequently with other users and people involved in the drug trade, and these persons constitute a network of potential motivated offenders. One reason the active drug user becomes increasingly isolated from conventional society is that drug use is proscribed. The illegal status of street drugs creates an environmental context that encourages addicts to gravitate to the norms and loyalties of drug using groups. The combination of these characteristics—the illegal status and circumscribed nature of the interactional network—exerts a strong influence on the drug user by deepening his or her commitment to the subculture (Kelly, 1983).

The risk of victimization is influenced by the target attractiveness of an individual and his or her belongings. A target can be attractive if it is unguarded by capable guardians. Drug users and dealers are attractive targets for robberies when it is believed they are carrying drugs and/or money. Suitable and unguarded targets also can be attractive not just for reward, but because they are easy to victimize (Goldstein, 1985; Hough, 1987; MacCoun et al., 2003). In many instances drug users lack capable guardians who could serve as deterrents to victimization. Drug intoxication can attract potential offenders because the judgment and reflexes of the drug user are impaired to resist motivated offenders from physical attack and from deception (Goldstein, 1985). Drug users are suitable targets for victimization because they refrain from reporting their victimization to authorities, especially when the victim is using or in the act of buying or selling drugs (Goldstein, 1985). Criminal offenders know that stigmatized persons are disdained by conventional society and therefore may be systematically preyed upon with a reduced likelihood of any legal consequences. Drug deals are illegitimate transactions and there is little formal recourse when the buyer is cheated. Drug offenders who are victimized cannot turn to legal authorities without implicating themselves in a proscribed act that can carry severe penalties. Calling upon legal authorities also conveys the message that you cannot take care of yourself. Reporting dealers and other drug users to legal authorities risks the stigmatic street label of informant, and there are few worse statuses in the street culture than being labeled a “snitch” (Rosenfeld, Jacobs, & Wright, 2003). In sum, these types of specific qualities of the street addict

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lifestyle help inform why, and in which ways, street addicts are highly vulnerable to victimization.

Active drug users live in a volatile environment where violence and victimization are integral parts of the everyday street lifestyle. Situations involving illicit drugs elevate violence and victimization (Reiss & Roth, 1993). They may involve disagreements over splitting drugs; disputes among competing distributors; theft of drugs or money; property crimes committed to raise drug money; disputes over drug quality or failure to pay; attacks on informants, witnesses and, at times, police; and the unwanted intrusion into well-established drug markets by other dealers. The tripartite model developed by Goldstein (1985) differentiates how violence and victimization are intrinsic to involvement with illicit drugs. Goldstein (1985) maintains that violent behavior can be the result of the interplay between pharmacological effects, economic pressures produced by the compulsive use of drugs, and lifestyle (systemic) factors of the street addict subculture (Goldstein, 1985). The psychopharmacological component of the tripartite violence model suggests that individuals engage in violent acts as a result of taking the drug. Withdrawal symptoms from heroin may cause feelings of irritability, frustration, and anger which can increase the risk for violence. Economic violence can be the result of action taken by dependent users to obtain money and/or drugs to sustain use. Street addicts consume a large amount of drugs and maintaining regular use of heroin becomes expensive and unrelenting (Stephens, 1991). As heroin dependence increases, money increasingly is needed to adjust for increased drug tolerance and to avoid withdrawal symptoms. Systemic violence occurs during the aggressive patterns of interaction within the system of illicit drug distribution and drug use, such as competition for drug markets and customers and punishing someone for distributing bad drugs (Goldstein, 1985).

The exchange relationship between dealer and buyer is characterized as one of distrust and conflict (McBride, 1981). The buyer worries that the dealer will sell adulterated or poor quality merchandise that may lead to an overdose or withdrawal, and the dealer suspects that the buyer may try to steal the merchandise by threat or use of force. The circumstances of obtaining quality drugs and ingesting them without getting ripped off or arrested constitute potentially violent situations (Agar, 1973; McBride, 1981). When problems arise, the subcultural value system of the street, "the code of the street," gives legitimacy to the use of violent retaliation to solve disputes (Anderson, 1999). Failure to retaliate quickly against violations of the street code signals weakness and opens the door for future exploitation. The availability of lethal weapons also contributes to drug-related violence. Guns can be employed in the effort to prevent or facilitate crimes (Tedeschi & Felson, 1994; Wells, 2002). In some situations firearms are viewed as a source of power and

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increase the chance that possessors will be able to carry out their intentions (Kleck & McElrath, 1991; Tedeschi & Felson, 1994; Wells, 2002). Evidence suggests that gun possession affects whether individuals enter volatile situations that they would otherwise not enter (Wells, 2002).

These common lifestyle characteristics are important to our ability to understand victimization among active drug users. The illegal status of street drugs combined with a subculture populated with persons who routinely operate outside the bounds and control of the law characterize a lifestyle and a set of activities that make the risk of victimization quite high. The combination of routine activities/lifestyle and street addict role theories provides a conceptual framework to understand how the specific routine activities and lifestyle of a deviant subculture expose drug abusers to potentially violent experiences. While routine activities/lifestyle theory provides a general framework of how certain situational circumstances increase the chance of victimization for an individual, the street addict role theory supplements routine activities/lifestyle theory by delineating the contextual lifestyle and specific routine activities of the active drug user that influence violent victimization.

The purpose of this paper is to assess the ability of the combination of the routine activities/lifestyle theory and the street addict role theory to help us understand violent victimization among active street drug users.

METHODS

SAMPLE AND PROCEDURES

The data presented in this paper were collected from 900 active drug users in Miami Dade County, Florida between July, 1997 and February, 2000. The sample consisted of self-identified African-American, Hispanic/Latino, and non-Hispanic White men and women who were enrolled in a parent study designed to investigate the initiation of injection drug use and related risk factors for HIV (see Chitwood, Comerford, Kitner, Palacios, & Sanchez, 2001; Chitwood, Comerford & Sanchez, 2003; Chitwood et al., 2000; Kelley & Chitwood, 2004; Varga, Chitwood, & Fernandez, 2006). The study was approved by the University of Miami Institutional Review Board and a Certificate of Confidentiality was obtained prior to initiation of the study.

A stratified network (snowball) sampling design was utilized to identify and recruit active drug users from multiple communities in South Florida that are known for high illicit drug use. This network-based recruitment design is useful when locating samples from hard to reach and “hidden” populations that have unknown study population parameters (Watters & Biernacki, 1989). Team recruitment techniques were used to cover specific geographical areas and communities (Stull & Erickson, 1998). The recruitment team included four outreach workers, three of

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whom were indigenous to the study communities. All outreach workers received extensive training for their responsibilities from the director of ethnography, an anthropologist with many years of field experience in Miami.

Recruitment occurred through direct street contact within the communities (e.g., streets, parks, and local businesses) and no contact occurred within institutional settings such as drug treatment programs or jails or prisons. Enrollment in the study required two levels of eligibility screening. Outreach workers first performed a brief screen of potential participants on the streets. Most individuals agreed to be screened. Some persons who initially declined screening subsequently agreed to screening when they learned from observation that it was safe to do so. Chain referral methods made calculating refusal rates impractical, and the likelihood that persons were approached by multiple recruiters precluded exact counts. We were not able to collect information about specific individuals until they had given written informed consent. All individuals who appeared to meet the eligibility criteria on the street screen were transported to an assessment center for a more thorough eligibility screening. Nine out of ten (91.1%) persons who were thoroughly screened were study eligible, and all of these individuals agreed to participate.

Individuals who met the following criteria qualified for participation in the study: (a) 18 years or older, (b) sniffed or injected heroin at least weekly for the previous six months, (c) had not been enrolled in drug treatment during the past six months, (d) tested positive on the Abuscreen ONTRAK Assay urine screen for opiates, and (e) demonstrated the presence or absence of track marks consistent with group classification (verified by a phlebotomist). Drug use status was further verified through the consistency of self-report with staff knowledge of street behavior.

A full-time trained interviewer administered the Modified AIDS Behavior Questionnaire to each participant in a private room to ensure confidentiality. The instrument took approximately 1 to 1.5 hours to complete and included information on sociodemographics, drug use history, current drug use, drug use networks, street lifestyle behavior, criminal behavior, and violent victimization (Chitwood, Comerford, Kitner, Palacios, Sanchez, 2001; Chitwood, Comerford, Sanchez, 2003; Chitwood, Sanchez, Comerford, Page, McBride, Kitner, 2000; Kelley & Chitwood, 2004; Varga et al., 2006). This questionnaire included modified elements of the Risk Behavior Assessment (RBA) Questionnaire that was used in several research projects funded by the National Institute on Drug Abuse (See Chitwood et al., 1991 for a copy of the original RBA Questionnaire). The "Readiness for Change Scale" was also used in the interview to determine the readiness of the participants to quit using drugs and enter drug treatment. Study participants were assured of strict confidentiality of all data and informed at the beginning of the interview that they could request that the interview be stopped at any point. None of the participants asked that the interview

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be terminated. The research team has been conducting drug-use studies for many years in Miami and the staff members have a reputation on the street that they can be trusted. In addition, the assessment center environment is structured so that study participants feel comfortable and safe. Participants were paid \$25 for their time and were transported back to the area from which they were recruited.

MEASURES AND ANALYTIC APPROACH

The primary goal of this study is to examine factors associated with violent victimization among active drug users as guided by the integration of two complementary theoretical perspectives: routine activities/lifestyle and street addict role. The combination of these two noncompeting theoretical perspectives creates a single conceptual framework that focuses attention on four domains which may contribute to the victimization of an active drug user: demographics, personal networks, drug use, and street business. These domains help provide the relevant context to understand and identify how the street subcultural complex and daily routine activities/lifestyle of active drug users may influence their risk levels for violent victimization. The independent variables comprising each domain were selected to represent the routine activities and lifestyle of active drug users, as well as items that logic and experience suggested to be associated with victimization. All behavioral measures are based on the last 30 days prior to the interview.

DEPENDENT VARIABLE

Violent victimization is a dichotomous measure that indicated whether the respondent had been a victim of violence within the past 30 days (0 = no; 1 = yes).

¹ Respondents were asked whether they had been shot at, threatened with a gun or some other weapon, injured by a gunshot or by some other weapon, beaten up, or robbed. Respondents who answered no to all of these categories were coded (no = 0), and respondents who answered yes to one or more of these categories of victimization were coded (yes = 1). Approximately 22% of the sample reported that they had personally experienced one or more types of violent victimization during the past 30 days (see Table 1).

INDEPENDENT VARIABLES BY DOMAINS

DEMOGRAPHICS DOMAIN

Variables in the demographics domain include sex, race/ethnicity, age, marital status, residence status, education (high school diploma/GED), and employment status. Prior studies have shown these demographic factors to be associated with victimization (Hindelang et al., 1978; Hoyt, Ryan, & Cauce, 1999; Lauritsen et al., 1991; Miethe & Meier, 1990; Mustaine & Tewksbury, 1998; Sampson & Lauritsen, 1990).

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Approximately 31% of the sample was comprised of females (0=male; 1=female). The *racial/ethnic* composition was 46% African-American, 26% Hispanic/Latino, and 28% non-Hispanic White (non-Hispanic White is the referent group). *Age* represents the respondent's age in years at the time of interview. The age range varied from 18 to 64 (mean 36.63, *SD*=9.01). *Marital status* is a dichotomous variable indicating whether respondents were married or living with a partner versus not married (0 = not married; 1 = married/cohabitating). Of the sample, about 27% indicated they were married or cohabitating with a partner. *Residence status* is a dichotomous variable that denotes whether respondents lived in a stable (i.e., own, partner's, relative's, or friend's home or apartment) or unstable living situation (i.e., streets, abandoned building, car, shelter, motel, boarding house) for the past 30 days (stable = 0; unstable = 1). Around 31% of the respondents reported living in an unstable living environment. *High school diploma/GED* is a dichotomous variable that indicates whether the respondent had graduated from high school or earned a general equivalency diploma (GED) (0 = no; 1 = yes). Over half (54%) of the respondents had received a high school diploma or GED. *Employment status* is a dichotomous variable that indicates whether the respondent was participating regularly part or full time in the legal labor force for the past 30 days (unemployed = 0; employed = 1). Of the sample, approximately 25% were employed in a regular full or part-time job.

PERSONAL NETWORKS DOMAIN

The personal networks domain comprises the respondent's network of personal relationships during the past 30 days. This domain represents the respondent's sexual partnerships and association and integration with other drug users as room/house mates, peers, acquaintances, and sexual partners. Variables include having acquaintances who use drugs, having multiple sex partners, having one or more injection sex partners, and living with a drug user. Published studies have found personal network characteristics, particularly delinquent peer networks, to be predictors of violent victimization (Lauritsen et al., 1992; Schreck & Fisher, 2004; Schreck, Fisher, & Miller, 2004; Schreck et al., 2002).

Acquaintances who use drugs is a dichotomous measure indicating the proportion of acquaintances/friends who use drugs (0 = 50% or less; 1 = over 50%). All participants reported knowing other drug users and about 61% reported over half of their acquaintances used drugs. *Multiple sex partner(s)* is a dichotomous variable indicating whether the respondent had two or more sexual partners in the past 30 days (0 = no; 1 = yes). Approximately one-third (32.9%) of the sample had multiple sex partners. *Injection sex partner(s)* is a dichotomous variable indicating whether the respondent had at least one sexual partner who injected drugs (0 = no; 1 = yes). Around one-quarter (24.8%) of the sample reported having sex with an injection

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drug user. *Live with drug user* is a dichotomous variable indicating whether the respondent resided with a drug user (0 = no; 1 = yes). About 35% reported that they were living with a person who used drugs.

DRUG USE DOMAIN

The drug use domain is defined as a respondent's self-reported drug use during the past 30 days. Variables in this domain include heroin, crack cocaine, powder cocaine, and alcohol use. We included multiple substances in our analysis since many active drug users use a combination of drugs (poly-drug use) on a regular basis (Anglin & Perrochet, 1998; Edmunds, Hough, Turnbull, & May, 1999; Nurco et al., 1995).

Heroin use is a dichotomous variable that indicates the frequency of heroin use in the past 30 days (0 = less than once a day; 1 = once a day or more). All respondents used heroin at least weekly and about 69% reported using heroin on a daily basis. *Crack cocaine use*, *powder cocaine use*, and *alcohol use* indicate the frequency of use for the past month, and each is coded into three categories (never as referent category; once a week or less; more than once a week). Nearly half of the sample reported using crack more than once a week in the past 30 days, about 14% used once a week or less, and approximately 38% reported not using any crack cocaine. Around 28% reported using powder cocaine more than once a week and 25% used once a week or less. Less than one-third (28%) reported never drinking alcohol in the past 30 days while nearly half drank alcohol more than once a week.

STREET BUSINESS DOMAIN

The street business domain is defined as a respondent's self-reported degree of involvement in the daily life of street hustling to meet one's personal needs, classically referred to as "ripping and running" (Agar, 1973) and "taking care of business" (Preble & Casey, 1969). Engaging in street business activities reflects the skills and techniques to obtain resources and support a lifestyle of drug and non-drug needs (Agar, 1973; Preble & Casey, 1969; Stephens, 1991). Participation in street business activities, which includes criminal and dangerous types of behaviors, characterizes the lives of many active drug users. Variables in this domain include illicit drug trade involvement, property crime, prostitution, con games, stealing drugs, and carrying a gun.

Drug trade is a dichotomous measure indicating whether the respondent was involved in the drug trade such as selling or distributing drugs (0 = no; 1 = yes). The majority of respondents (about 58%) reported current involvement in some aspect of the drug trade. *Property crime* is a dichotomous variable that indicated whether the respondent engaged in various forms of theft such as stealing property, shoplifting, burglary, auto theft, or writing or cashing bad checks (0 = no; 1 = yes).

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Approximately 35% of the sample were engaged in at least one property offense. *Prostitution* is a dichotomous variable indicating whether the respondent participated in a sex for money or sex for drugs exchange (0 = no; 1 = yes). About 15% of the sample reported involvement in prostitution. *Con games* is a dichotomous variable indicating whether the respondent had participated in running con games on others (0 = no; 1 = yes). Around 23% said they participated in con games. *Steal drugs* is a dichotomous variable indicating whether the respondent had engaged in stealing drugs (0 = no; 1 = yes). Nearly 13% of the sample reported stealing drugs from someone in the past 30 days. *Carry gun* indicates how often a respondent reported carrying a firearm outside his or her home in the past 30 days (never as referent category; 50% or less of the time; over 50% of the time). Approximately 10% of the respondents reported carrying a gun when leaving their home and 5% of the sample carried a gun over half of the time.

ANALYTIC APPROACH

We first used standard epidemiologic procedures (Hennekens & Buring, 1987) to estimate the 30-day period prevalence of violent victimization among the sample. We subsequently performed descriptive and multivariate analyses to examine how the specific routine activities/lifestyle behaviors of active drug users contribute to the risk of violent victimization.² Multivariate logistic regression was employed to examine violent victimization by the four domains: demographics, personal networks, drug use, and street business behaviors. We examined how each domain contributes to the explanation of current violent victimization. Our multivariate analyses proceed in four steps and we present four models. We regressed violent victimization on demographic domain factors in model 1. In model 2, we regressed violent victimization on demographic and personal networks domain variables. In model 3, we introduced the drug use domain variables in addition to the demographic and personal network factors. Model 4 added the street business variables and included all other domain variables. We tested for multicollinearity and did not find evidence of high collinearity in any of the models.³

RESULTS

The 30 day period prevalence of violent victimization and each specific type of victimization is presented in Table 1. Approximately 22% of all respondents reported they had been victimized by a violent act. The most common type of victimization experienced by the respondents was being threatened by a gun or some other weapon (11.8%), while smaller proportions reported they had been shot at with a gun (1.8%) or physically injured by a gun or some other weapon (2.9%). Nearly 11% of the

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sample indicated being robbed and 6.5% reported being physically beaten up in the last 30 days.

TABLE 1
PREVALENCE & TYPE OF VIOLENT VICIMIZATION IN THE LAST 30 DAYS

(N = 900)	
	%
Violent Victimization	22.2
Type of Violent Victimization	
Threatened with a weapon	11.8
Robbed	10.9
Beaten up	6.5
Injured by a weapon	2.9
Shot at	1.8

Table 2 displays the univariate descriptive statistics for demographic, personal networks, drug use, and street business domain variables by violent victimization. Three (i.e., race/ethnicity, age, and residence) demographic domain characteristics were significantly associated with violent victimization. Both African-Americans and Hispanic/Latinos were less likely than their non-Hispanic White counterparts to be victimized. Younger respondents and participants living in an unstable form of residence were more likely to be victimized. Three variables within the personal networks domain were significantly associated with victimization. Respondents whose peer networks were comprised of more than 50% drug users were more likely than those with a less dense network of drug users to be victimized. Having multiple sex partners and having an injection sex partner also increased the likelihood of victimization. Multiple substances from the drug use domain were significantly associated with violent victimization. Respondents who used crack cocaine, powder cocaine, or alcohol more than once a week were more likely than nonusers of each these substances to report victimization. All six variables within the street business domain (i.e., drug trade involvement, property crime, prostitution, con games, steal drugs, and carrying gun over 50% of the time) were positively associated with violent victimization. Respondents who engaged in street business activities that

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TABLE 2
CHARACTERISTICS OF THE SAMPLE: DESCRIPTIVE STATISTICS FOR VIOLENT VICTIMIZATION

Study Variables by Domains	% Victimized	Unadjusted OR	95% CI
Demographic Domain			
Sex			
Male	21.2	1.00	
Female	24.6	1.22	0.87-1.70
Race/Ethnicity			
White non-Hispanic	27.6	1.00	
African-American	19.9	0.65*	0.45-0.94
Hispanic/Latino	20.6	0.68*	0.44-0.99
Age	?	0.99*	0.97-0.99
Marital Status			
Not Married	21.1	1.00	
Married/Live with partner	25.2	1.26	0.89-1.78
Residence Status			
Stable	20.2	1.00	
Unstable	26.6	1.43*	1.02-1.99
High School Diploma/GED			
No	24.5	1.00	
Yes	20.2	0.78	0.57-1.07
Employment Status			
Unemployed	22.4	1.00	
Employed (Regular Full or Part-time)	21.6	0.96	0.66-1.38
Personal Networks Domain			
Acquaintances who Use Drugs			
50% or less	16.1	1.00	
Over 50%	26.2	1.86***	1.32-2.62
Multiple Sex Partners			
No	17.9	1.00	
Yes	31.1	2.07***	1.50-2.86
Injection Sex Partner(s)			
No	19.9	1.00	
Yes	29.1	1.65**	1.17-2.33
Live with Drug User			
No	23.5	1.00	
Yes	19.9	0.81	0.58-1.14
Drug Use Domain			
Heroin Use			
Less than once a day	19.8	1.00	
Once a day or more	23.3	1.23	0.87-1.75
Crack-Cocaine Use			
Never	16.2	1.00	
Once a week or less	20.3	1.32	0.78-2.24
More than once a week	27.5	1.96***	1.37-2.80
Powder Cocaine Use			
Never	18.1	1.00	
Once a week or less	19.5	1.09	0.72-1.65
More than once a week	31.4	2.06***	1.44-2.97
Alcohol Use			
Never	18.7	1.00	
Once a week or less	20.2	1.10	0.69-1.75
More than once a week	25.2	1.46*	1.01-2.14
Street Business Domain			
Drug Trade Involvement			
No	18.0	1.00	
Yes	25.2	1.53**	1.11-2.13
Property Crime			
No	18.8	1.00	
Yes	28.7	1.74***	1.26-2.40
Prostitution			
No	19.4	1.00	
Yes	38.2	2.58***	1.75-3.80
Con Games			
No	18.6	1.00	
Yes	34.6	2.33***	1.65-3.28
Steal Drugs			
No	19.9	1.00	
Yes	52.3	4.42***	2.64-7.40
Carry Gun			
Never	20.6	1.00	
50% or less	33.3	1.93	0.99-3.74
Over 50%	41.9	2.77***	1.48-5.20

*p<.05; **p<.01; ***p<.001

n = 900

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are central components of the street addict subculture were substantially more likely to experience victimization.

MULTIVARIATE ANALYSIS

Table 3 presents violent victimization regressed on demographic, personal networks, drug use, and street business domain variables. We examined how each domain contributes to the explanation of current violent victimization. To allow for the comparison of relative effect sizes for variables and domains in the model, we computed standardized beta coefficients (Std. β).⁴ We reported adjusted odds ratios (*AOR*) with corresponding 95% Confidence Intervals (*CI*) and model summary statistics (-2 log likelihood, log likelihood ratio, pseudo R^2).

Model 1 contained the seven variables of the demographic domain ($\chi^2 = 18.71$, $df = 8$). None of these demographic factors were observed to be associated with violent victimization in this baseline model.

In Model 2, we added the four variables from the personal networks domain and found a significantly improved model fit relative to Model 1 as indicated by log likelihood ratio tests ($df = 4$, $p < .001$). Three of the four personal networks domain variables had significant independent effects on violent victimization, net of the demographic domain variables. Having a network that was comprised largely (over half) of drug users (*AOR* = 1.56) and having multiple sex partners (*AOR* = 1.90) in the past 30 days were significant risk factors for violent victimization. Respondents who lived with at least one person who used drugs were less likely to experience victimization (*AOR* = 0.68). With the addition of the personal network variables to the equation, marital status (married/living with partner *AOR* = 1.53) appeared in model 2 as a significant predictor, and race/ethnicity (African American *AOR* = 0.70, $p = .07$) approached the $p < .05$ significance level.

Model 3 added the estimation of factors from the drug use domain. The addition of the drug use domain again significantly improved model fit ($df = 7$, $p < .001$). The frequent use of crack cocaine and powder cocaine had significant independent effects on violent victimization, net of the demographic and personal network domain variables. Use of crack cocaine (*AOR* = 1.66) or powder cocaine (*AOR* = 2.02) more than once a week compared to no use, increased the likelihood of personal victimization. The demographic and personal networks domains remained supported in this model, and in Model 3 the effect of race/ethnicity (African American *AOR* = 0.59) became a statistically significant factor.

In Model 4, we introduced the street business domain variables and showed that the addition of this domain significantly improves model fit ($df = 7$; $p < .001$). This final model inclusive of all four domains had the best model fit relative to the other three models that were presented ($\chi^2 = 109.12$, $p < .001$). We found that the street business domain partially mediated the significant effects of other domain variables

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TABLE 3
VIOLENT VICTIMIZATION REGRESSED ON DEMOGRAPHIC, PERSONAL NETWORKS, DRUG USE,
AND STREET BUSINESS DOMAINS

	AOR	Model 1 95% CI	β	AOR	Model 2 95% CI	β	AOR	Model 3 95% CI	β	AOR	Model 4 95% CI	β
Demographic Domain												
Female	1.17	0.84-1.72	0.07	1.12	0.77-1.62	0.05	1.20	0.82-1.78	0.09	1.32	0.84-2.06	0.13
Race/Ethnicity												
White Non-Hispanic	1.00			1.00			1.00			1.00		
African-American	0.74	0.50-1.06	-0.15	0.70	0.47-1.06	-0.17	0.62*	0.40-0.95	-0.24	0.58**	0.37-0.90	-0.28
Hispanic/Latino	0.72	0.43-1.05	-0.15	0.73	0.46-1.16	-0.14	0.79	0.49-1.27	-0.1	0.73	0.45-1.19	-0.14
Age	0.99	0.97-1.00	-0.12	0.99	0.97-1.01	-0.07	0.99	0.97-1.01	-0.08	1.00	0.98-1.02	-0.02
Marital Status												
Not Married	1.00			1.00			1.00			1.00		
Married/Live with partner	1.29	0.93-1.89	0.11	1.53*	1.03-2.27	0.21	1.57*	1.05-2.37	0.20	1.40	0.91-2.15	0.15
Residence Status												
Stable	1.00			1.00			1.00			1.00		
Unstable	1.47	1.00-2.10	0.18	1.19	0.81-1.74	0.08	1.19	0.80-1.76	0.08	1.21	0.81-1.82	0.09
High School Diploma/GED												
No	1.00			1.00			1.00			1.00		
Yes	0.78	0.57-1.08	-0.12	0.79	0.57-1.10	-0.12	0.78	0.56-1.09	-0.13	0.74	0.52-1.04	-0.15
Employed (Regular Full or Part-time)												
No	1.00			1.00			1.00			1.00		
Yes	1.01	0.69-1.48	0.00	1.07	0.72-1.58	0.03	1.15	0.76-1.72	0.06	1.21	0.79-1.84	0.08
Personal Networks Domain												
Acquaintances who Use Drugs												
50% or less				1.00			1.00			1.00		
Over 50%				1.56*	1.09-2.23	0.22	1.41*	1.00-2.04	0.17	1.28	0.87-1.89	0.12
Multiple Sex Partners												
No				1.00			1.00			1.00		
Yes				1.90***	1.34-2.69	0.30	1.68**	1.17-2.42	0.24	1.27	0.82-1.98	0.11
Injection Sex Partner(s)												
No				1.00			1.00			1.00		
Yes				1.26	0.86-1.84	0.10	1.25	0.85-1.84	0.10	1.23	0.82-1.83	0.09
Live with Drug User												
No				1.00			1.00			1.00		
Yes				0.68*	0.46-0.99	-0.18	0.66*	0.44-0.98	-0.20	0.61*	0.40-0.93	-0.24
Drug Use Domain												
Heroin Use												
Less than once a day							1.00			1.00		
Once a day or more							1.29	0.88-1.90	0.12	1.21	0.81-1.81	0.09
Crack-Cocaine Use												
Never							1.00			1.00		
Once a week or less							1.21	0.70-2.11	0.07	1.16	0.66-2.06	0.05
More than once a week							1.66**	1.10-2.51	0.25	1.55*	1.01-2.38	0.22
Powder Cocaine Use												
Never							1.00			1.00		
Once a week or less							1.13	0.73-1.74	0.05	1.15	0.73-1.79	0.06
More than once a week							2.02***	1.37-2.98	0.32	1.94***	1.29-2.92	0.30
Alcohol Use												
Never							1.00			1.00		
Once a week or less							0.96	0.59-1.57	-0.02	1.00	0.61-1.66	0.00
More than once a week							1.29	0.84-1.97	0.13	1.29	0.83-2.01	0.13
Street Business Domain												
Drug Trade Involvement												
No										1.00		
Yes										0.94	0.64-1.40	-0.03
Property Crime												
No										1.00		
Yes										1.16	0.79-1.69	0.07
Prostitution												
No										1.00		
Yes										1.36	0.78-2.37	0.11
Con Games												
No										1.00		
Yes										1.32	0.87-2.03	0.12
Steal Drugs												
No										1.00		
Yes										3.14***	1.75-5.66	0.30
Carry Gun												
Never										1.00		
50% or less										1.64	0.76-3.53	0.10
Over 50%										2.74**	1.36-5.54	0.22
-2 Log Likelihood	936.92			907.27			880.13			844.36		
-2 Log Likelihood Difference				29.65			27.14			35.77		
Significance of Difference				0.00			0.00			0.00		
Pseudo R ²	0.03			0.08			0.12			0.18		

*p<.05; **p<.01; ***p<.001

n = 900

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on violent victimization, but observed that a combination of demographics, personal networks, drug use, and street business characteristics matter to some extent in explaining current violent victimization. Support for each domain was displayed, and each domain independently contributed to the explanation of violent victimization. For the demographic domain, race/ethnicity remained significantly associated with violent victimization, while the effect of marital status was mediated by the street business domain. African American drug users were at a decreased odds of 42% ($AOR = 0.58$) in comparison to their non-Hispanic White counterparts to be victimized and while not statistically significant, victimization among Hispanics/Latinos was less likely as well ($AOR = 0.73$). One personal network characteristic maintained a significant and independent effect on violent victimization, net of other variables. Living with other persons who use drugs decreased the odds of experiencing victimization by 39% ($AOR = 0.61$) and appeared to operate as a protective factor against victimization. The street business domain mediated the effects of two of the other personal networks variables (proportion of acquaintances who use drugs and multiple sex partners) on victimization, and these variables were no longer significantly related to victimization. Of the drug use domain, the heavy use of either of the two forms of cocaine continued to be significant risk factors for victimization. The more frequent/heavier users (at least twice a week) of crack and powder cocaine (cocaine HCl) were more likely than nonusers of these drugs to be victimized. More than once a week use of powder cocaine had a somewhat stronger effect size than crack cocaine use of similar frequency, with a 102% ($AOR = 2.02$) and 66% ($AOR = 1.66$) increase in odds of being victimized, respectively. Stealing drugs and carrying a gun were street business domain variables that were significantly associated with current victimization. Engagement in these street business activities substantially increased the likelihood of victimization. Stealing drugs increased the odds of being victimized by 3.1 times ($AOR = 3.14$). Persons who carried a gun more than half of the time when leaving home were considerably more likely ($AOR = 2.74$) than users who never carried a gun to be victims of violence. Based on the standardized coefficients in Model 4, the use of powder cocaine at least twice a week ($\beta = 0.30$) and stealing drugs ($\beta = 0.30$) appeared to be the strongest risk factors for violent victimization, followed by use of crack cocaine at least twice a week ($\beta = 0.22$), and carrying a gun over half of the time ($\beta = 0.22$). The strongest protective factor for violent victimization was being African-American ($\beta = -0.28$), followed by living with a drug user ($\beta = -0.24$).

DISCUSSION

Most studies of violent victimization have utilized samples obtained from the general population, but recently a small number of studies have begun to focus on the experiences of violence among noninstitutionalized crime-linked segments of

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the population, including active drug users (Bourgois, 1995; Inciardi, 1990; Jacobs, 2000; MacCoun et al., 2003; McCoy et al., 2001; McElrath et al., 1997; Stewart et al., 2004). This paper builds upon this recent research by specifically addressing how the risk for experiencing violence differs among active drug users already involved in a marginalized lifestyle and seeks to gain a better understanding of the overlap between offenders and victims.

We found the 30 day period prevalence of violent victimization among the 900 active drug users in our study to be very high. Approximately one out of every five respondents reported that they had been the victim of one or more violent events within the 30 day time period prior to interview. Other studies such as McElrath et al. (1997) similarly note that drug users have higher levels of violent victimization than the general population. Based on the 2005 National Crime Victimization Survey data reported by the Bureau of Justice Statistics, U.S. residents age 12 or older experienced an estimated five million violent victimizations (robbery, aggravated assault, and simple assault), which was approximately 2% of the U.S. population (Bureau of Justice Statistics, 2006). The high prevalence of violent victimization among active drug users supports the perspective that street-based users of illicit drugs are a vulnerable sub-population who are exposed to a large pool of motivated offenders who perceive them to be convenient targets.

Our study extends the investigation of violent victimization among illicit drug users by identifying characteristics that differentiate drug users who are recent victims of violence from other users who have not been similarly victimized. We found support for combining the street addict role and routine activities/lifestyle theoretical perspectives to help explain violent victimization. Our findings confirm the routine activities/lifestyle theory as a viable general framework for examining victimization among active drug users when it is informed by a subcultural theory about the routine activities of street drug users. The street addict role theory does not address victimization per se, but it does fill in the necessary specific routine activities and qualities of the active drug user's lifestyle. The incorporation of this context relevant lifestyle perspective into the routine activities/lifestyle theory helps identify domains, settings, and behaviors of active drug users that contribute to or reduce exposure to violent victimization. We suggest that a logical next step in the investigation of routine activities/lifestyle theory would be a study that examines the amount of time involved in the specific street behaviors of drug users.

The multivariate models help us assess the contribution of this combined theoretical framework to the explanation of violent victimization among active drug users. We found that demographic factors by themselves do not increase our understanding of victimization for this high risk population. This is consistent with existing critiques of the routine activities theory that recommend the use of specific

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measures of lifestyle in lieu of proxy demographic measures. By incorporating both demographic and lifestyle measures, our findings reveal that demographic variables become meaningful when they are examined net of personal networks, drug use, and street business domain variables. The addition of the three domains to the baseline demographic model significantly improved the model fit for violent victimization. Each domain introduced unique elements of the contextual lifestyle and independently contributed to explain victimization. All four domains are supported in the final model, which helps us understand how, within this high risk group, some persons are more vulnerable than others to being victimized. Specific contexts, situations, and behaviors increase the likelihood that street drug users become the victims of violence.

Many persons in our sample were polydrug users. All respondents used heroin at least once a week and the majority used some form of cocaine. We did not find frequency of heroin use to be a significant predictor of victimization among this group of regular heroin users, but the frequent use of cocaine (two or more times a week) in powder or crack form was a significant predictor of violent victimization. It is likely that the minimum frequency of heroin use that was required for study admission (i.e., at least weekly use of heroin for the past six months) reduced variance in a manner that did not permit a sufficient examination of the relationship of heroin use with victimization. Among these regular heroin users, however, the frequent use of powder or crack cocaine significantly increased the likelihood of victimization. Cocaine is a central nervous system stimulant that rapidly produces euphoria whether ingested as crack or powder cocaine. Cocaine is highly reinforcing and produces an intense desire for additional doses. This compulsion to use can motivate users to take greater risks in their quest to acquire cocaine than they would take in other circumstances. This increases the likelihood that users will enter unstable settings and encounter motivated offenders who view the cocaine seekers as suitable unguarded targets. Polydrug use requires increased funds to support the regular and frequent use of heroin and cocaine. Sustaining frequent use of multiple substances requires additional hustling activities that often include criminal behavior (Chaiken & Chaiken, 1990). When drug users increase their drug seeking behaviors to support multiple drug habits, their daily activities expose them to riskier and more vulnerable situations that amplify the opportunity to be victimized.

It is not surprising that stealing drugs and carrying a gun, which are two variables from the street business domain, are strong predictors of violent victimization net of all other variables. Stealing drugs creates a volatile situation that readily precipitates retaliatory violence. The code of the street encourages members of this subculture to deal violently with this type of transgression. Retaliation for stealing demonstrates to other potential transgressors that this type of violation will not go

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unpunished (Anderson, 1999; Jacobs, 2004). Gun possession outside of the home also increased the risk of violent victimization in our study. Gun possession may indirectly encourage engagement in riskier, more dangerous types of situations, because possessors believe they can protect themselves from possible victimization. Wells (2002) found that among criminal offenders, firearm possession affected an individual's decision to enter situations that were perceived to be dangerous. While the decision to enter hazardous settings was affected by gun possession, the expected nature of a situation also affected the decision to carry a gun (Wells, 2002). In entering perceived risky situations, individuals decide to carry a gun with them as a defensive tool. Kleck and Gertz (1995) report that a common way in which guns are used is not premeditated offensive use by would-be perpetrators but rather defensive use by intended victims. Individuals who have been previously victimized may also be more likely to carry guns to protect themselves against future victimizations. Gun possessors seem to be more confident (Jacobs et al., 2000) and report that firearms make them feel safe (Kleck, 1997). Evidence suggests that firearm possessors are more likely than nonpossessors to face opponents who also are armed (Kleck & Gertz, 1995).

One demographic variable, race/ethnicity, that was associated with violent victimization in our study, appears to operate differently for active drug users than has been reported for the general population in other victimization studies. African American drug users in our study were significantly less likely than non-Hispanic Whites to experience violence, and while not statistically significant, Hispanic/Latinos also tended to be less likely than non-Hispanic Whites to be victimized. Contrast this with the victimization reports based on the general population, such as the U.S. Bureau of Justice Statistics (2006), which indicate that African Americans and Hispanics/Latinos are more likely than non-Hispanic Whites to be victims of violence. We suggest that these apparently inconsistent findings, one for active street drug users and the other for the general population, are in fact evidence that the combination of theory about a specific group (i.e., street addict role theory with the routine activities theory) enhances our ability to understand violent victimization beyond that available with a general theory only. This is an instance where a general routine activities/lifestyle theory would posit that minority status and victimization should be positively associated, but when that theory is informed by the street addict role theory, the protective nature of these relationships is understandable. For the general population, a positive relationship is consistent with our knowledge that the historic segregation patterns of the American society and the structural factors associated with those patterns have forced members of minority groups to disproportionately reside in inner city communities characterized by high crime rates. The routine daily activities within these communities expose minority members of

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the general population to greater risk of victimization than occurs within most non-Hispanic White communities. When we examine active street drug users in Miami from the perspective of the routine activities/street addict role theories, however, we find that most street-based drug acquisition routine activities of both non-Hispanic White and African-American and Hispanic/Latino street drug users also occur within inner city communities whose residents are predominantly of African-American and Hispanic heritage. This means that higher proportions of non-Hispanic White addicts than minority addicts are seeking drugs in communities where they do not live and where their presence as outsiders will be more obvious. Copping drugs in these areas may not have the same effect for non-White and White active drug users. For instance, non-White users who reside in these areas will be better acquainted with the neighborhoods as well as the operational nature of the drug networks. This includes knowledge of the people involved in the drug trade and other drug using peers. Active drug users who do not reside in these communities characterized by high drug use and distribution will not be as familiar with or as well connected in these areas if they enter these areas solely to cop drugs. Additionally, the drug users and distributors who reside or regularly work in these high drug user areas are able to identify users who are not familiar with street social networks, and may view these users as outsiders. Such outsiders can be “easy targets” to victimize, because they appear attractive to the aggressor and lack capable guardians, such as other drug users or members of the community, to protect them. The lack of social networks and the weak ties with other active drug users that confront the outsider, coupled with the perception of a low likelihood of retaliation, can increase the odds of being victimized. Future research could extend our findings by performing a racial/ethnic specific analysis to help increase our understanding of how vulnerability to violent victimization differs among racial/ethnic groups.

Another area that can advance future research would be the inclusion of ecological characteristics to examine victimization among active drug users. Some research suggests that ecological proximity to crime such as neighborhood structural characteristics influence victimization, net of individual level demographic and lifestyle factors (Mustaine & Tewksbury, 1998; Sampson & Lauritsen, 1990). The addition of environmental characteristics would offer new insights about whether the neighborhood context as well as the lifestyle of active drug users matter when it comes to victimization. Some research suggests that active drug users and non-users sampled from the same ecological neighborhoods are at differential risks for victimization (Conway, Hu, Kim, & Bullon, 1994; McCoy et al., 2001). Active drug users have been found to be at a higher likelihood than non-drug users of being a witness, perpetrator, or victim of violence (McCoy et al., 2001). These findings suggest that the inclusion of a comparison group of non-users would advance our

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understanding of violent victimization among drug users and non users from the same ecological vicinity.

The personal network factor of living with at least one other drug user, also appears to be a protective factor for victimization in our sample. Again this observation does not seem to support the predominant finding for a general population that simple exposure to criminal offending peers is a dangerous risky situation (Akers, 1985; Jensen & Brownfield, 1986; Lauritsen, Laub, Sampson, 1992; Lauritsen, Sampson, Laub, 1991; Schreck et al., 2002; Schreck & Fisher, 2004). This finding does, however, find support from the combination of the general routine activities theory and the subcultural theory of the street addict role. The intensity and frequency of peer contextual factors are important when examining victimization (Schreck et al., 2004). It is reasonable that living and sharing daily routine activities with another drug user provides a protective mechanism of guardianship against potential aggressors when the routine activities are those of street addicts. Active drug users who live together are unlikely to use each other as targets because they have a relationship with each other that assumes a degree of trust and loyalty and because the likelihood of retaliatory action is high should one violate that trust. Future research that incorporates the frequency and intensity of the personal networks and peer group affiliations, and also accounts for the level of criminal offending among members of that network, will help clarify how peer or personal networks of drug users impact the risk of victimization within high-risk populations.

Limitations common to cross-sectional designs and to studies of nonprobability samples should be considered when these findings are evaluated. Cross-sectional study designs imply that information on all variables is collected at one data point and, while we can establish association between the independent variables and violent victimization, we cannot determine causation or examine reciprocal relationships. This study does not purport to represent all drug users because our respondents were recruited through street networks of an undefined population. Therefore our findings cannot be generalized to all active drug users even though we recruited across multiple neighborhoods in South Florida during both daytime and evening hours in an effort to increase the inclusiveness of our sample of noninstitutionalized street drug users. These data are subject to the same potential biases of any self-reported data. Our interview was pre-tested for its ability to collect reliable data, and we used full-time interviewers who were carefully trained and regularly monitored for reliability in an effort to reduce response bias. We also tested urine to confirm self-reported opiate drug use. Recall bias was minimized because our period of interest was the last 30 days. Self-reported data about high risk behaviors have been shown to be valid and reliable in other drug using populations (Anthony et al., 1991; Ball,

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1967; Harrison, 1995; McElrath, Chitwood, Griffin, & Comerford, 1994; Ponangi, Pintauro, & Darke, 1998).

Data restrictions did not permit us to include in our analyses a current violent offending measure of the past 30 days.⁵ McElrath et al. (1997) observed a positive but not statistically significant relationship between current violent offending and current violent victimization among injecting drug users. They suggested violent offenders in this illicit subculture were feared by others which minimized their target attractiveness and risk for violent victimization. The risk period for victimization was 30 days, and a longer time period of risk probably would have documented a higher prevalence of victimization. Future research that would use a longitudinal study design could estimate the incidence rate of violent victimization, examine the routine activities and patterns of victimization, and provide additional information about links between offender and victim.

This study contributes to the theoretical understanding of violent victimization among active drug users. The combination of the theoretical perspectives of routine activities/lifestyle and street addict role theories provides an improved theoretical framework for explaining victimization among this population. Future research could extend this theoretical framework to the examination of additional sub-populations and forms of violent victimization. The utility of using routine activities/lifestyle theory as a general framework to explain victimization in combination with a subcultural lifestyle perspective can contribute to the theoretical advancement of victimization among other marginalized or deviant types of groups.

NOTES

¹Because of data limitations, we chose a binary measure of violent victimization. Most persons who reported being victimized had experienced one type of victimization incident during the past 30 days. We were unable to assess how often the participants experienced victimization and whether multiple victimization types occurred in a single event or multiple victimization types occurred at different times.

²All analyses and models were estimated using SPSS 14.0.

³ Although multicollinearity diagnostics are not available for logistic regression in statistical packages, it is possible to apply collinearity diagnostics to logistic regression models. Collinearity diagnostics estimated in OLS regression are equivalent and applicable to the model being estimated under logistic regression (Allison, 1999).

⁴Comparing the odds ratios of independent variables should not be interpreted in terms of relative influence and strength of the independent variables on the dependent variable. Odds ratios reported in logistic regression analyses are based on unstandardized logistic regression coefficients. According to Agresti (1996) and Menard (2004), one approach to calculate standardized logistic regression beta

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coefficient is to multiply the sample estimate of the unstandardized logistic regression coefficient by the sample standard deviation of the predictor. Standardizing logistic regression coefficients in this manner allows us to interpret the standardized coefficients in terms of relative influence and strength of an independent variable on the dependent variable as in OLS regression but should not be interpreted as in linear regression. Although there are several approaches to calculating standardized logistic regression coefficients, all equations incorporating the standard deviation of predictors will produce the same ordering of relative influence among the independent variables.

⁵ Only a lifetime measure for violent offending was available. Since the purpose of our study was to examine factors associated with current violent victimization, we did not include lifetime violent offending in our present analyses because it is uncertain when the behavior occurred. Fifty-eight percent of the respondents reported perpetrating a violent act in their lifetime. Our sample was comprised mostly of an older population (mean = 36.63) and we suspect some had committed their violent offending behaviors at a younger age. We did run the final model (Model 4) controlling for lifetime violence and observed that violence significantly increased the risk of victimization. Adding lifetime violence to the final model explained only a small part of the variance and results remained the same. Results available upon request.

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REFERENCES

- Agar, M. H.
1973 *Ripping and running: A formal ethnography of urban heroin addicts*.
New York, NY: Seminar Press.
- Agresti, A.
1996 *An introduction to categorical data analysis*. New York, NY: Wiley.
- Akers, R. L.
1985 *Deviant behavior: A social learning approach*. Belmont, CA:
Wadsworth.
- Allison, P. D.
1999 *Logistic regression using the SAS system: Theory and application*. Cary,
NC: SAS Institute Inc.
- Anderson, E.
1999 *Code of the street: Decency, violence, and the moral life of the inner city*.
New York, NY: W. W. Norton.

Koo, CHITWOOD, SÁNCHEZ

- Anglin, M. D., & Perrochet, B.
1998 Drug use and crime: A historical review of research conducted by the UCLA Drug Abuse Research Center. *Substance Use and Misuse*, 33, 1871-1914.
- Anthony, J. C., & Forman, V.
2003 At the intersection of public health and criminal justice research on drugs and crime. In *Toward a drugs and crime research agenda for the 21st century: Special report* (pp. 11-64). Washington, DC: U.S. Department of Justice, National Institute of Justice.
- Anthony, J. C., Vlahov, D., Celesto, D. D., Menon, A. S., Margolick, J. B., Cohen, S., Nelson, K. E., & Polk, B. F.
1991 Self-report interview data for a study of HIV-A infection among intravenous drug users: Description of methods and preliminary evidence of validity. *Journal of Drug Issues*, 21, 739-757.
- Ball, J. C.
1967 The reliability and validity of interview data obtained from 59 narcotic drug addicts. *American Journal of Sociology*, 72, 650-654.
- Ball, J. C.
1991 Similarity of crime rates among male heroin addicts in New York City, Philadelphia and Baltimore. *Journal of Drug Issues*, 21, 413-427.
- Ball, J. C., Rosen, L., Flueck, J. A., & Nurco, D. N.
1981 The criminality of heroin addicts when addicted and when off opiates. In J.A. Inciardi (Ed.), *The drugs-crime connection* (pp.17-38). Beverly Hills, CA: Sage.
- Ball, J. C., Rosen, L., Flueck, J. A., & Nurco, D. N.
1982 Lifetime criminality of heroin addicts in the United States. *Journal of Drug Issues*, 11, 225-239.
- Ball, J. C., Shaffer, J. W., & Nurco, D. N.
1983 The day-to-day criminality of heroin addicts in Baltimore: A study in the continuity of offence rates. *Drug and Alcohol Dependence*, 12, 119-142.
- Bourgois, P.
1995 *In search of respect: Selling crack in el barrio*. New York, NY: Cambridge University Press.
- Bureau of Justice Statistics
2006 Criminal victimization, 2005. Washington DC: U.S. Department of Justice.
- Centers for Disease Control and Prevention
2007 Violence prevention at CDC. Retrieved July 25, 2007, from http://www.cdc.gov/ncipc/dvp/prevention_at_CDC.html.

VIOLENT VICTIMIZATION AND THE ROUTINE ACTIVITIES/LIFESTYLE OF ACTIVE DRUG USERS

- Chaiken, J. M., & Chaiken, M. R.
1990 Drugs and predatory crime. In M. Tonry & J. Q. Wilson (Eds.), *Crime and justice: A review of research* (Vol. 13, pp. 203-239). Chicago: University of Chicago Press.
- Chitwood, D. D., Comerford, M., Kitner, K. R., Palacios, W., & Sanchez, J.
2001 A comparison of HIV risk behaviors between new and long-term injection drug users. *Substance Use & Misuse*, 36, 91-111.
- Chitwood, D. D., Comerford, M., & Sanchez, J.
2003 Prevalence and risk factors for HIV among sniffers, short-term injectors, and long-term injectors of heroin. *Journal of Psychoactive Drugs*, 35, 445-454.
- Chitwood, D. D., Inciardi, J., McBride, D. C., McCoy, C. B., McCoy, H. V., & Trapido, E. J.
1991 *A community approach to AIDS intervention*. New York, NY: Greenwood Press.
- Chitwood D. D., Sanchez, J., Comerford, M., Page, J. B., McBride, D. C., & Kitner, K. R.
2000 Injection and current risk factors for HIV among new and long-term injection drug users. *AIDS Care*, 12, 313-320.
- Cohen, L. E., & Felson, M.
1979 Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 44, 588-608.
- Cohen, L. E., Kluegel, J. R., & Land, K. C.
1981 Social inequality and predatory criminal victimization: An exposition and test of a formal theory. *American Sociological Review*, 46, 505-524.
- Conway, T., Hu, T. C., Kim, P., & Bullon, A.
1994 Prevalence of violent victimization among patients seen in an urban public hospital walk-in clinic. *Journal of General Internal Medicine*, 9, 430-435.
- Edmunds, M., Hough, M., Turnbull, P. J., & May, T.
1999 Doing justice to treatment: Referring offenders to drug services. *DPAS Paper 2*. London: Home Office.
- Fagen, J. A., Piper, E. S., & Cheng, Y.
1987 Contributions of victimization to delinquency. *Journal of Criminal Law and Criminology*, 78, 586-613.

KOO, CHITWOOD, SÁNCHEZ

Fattah, E. A.

- 1993 The rational choice/opportunity perspectives as a vehicle for integrating criminological and victimological theories. In R.V. Clarke & M. Felson (Eds.), *Routine activity and rational choice* (pp. 225-258). Brunswick, NJ: Transaction.

Felson, M.

- 1986 Linking criminal choices, routine activities, informal control, and criminal outcomes. In D.B. Cornish & R.V. Clarke (Eds.), *The reasoning criminal: Rational choice perspectives on offending* (pp. 119-128). New York, NY: Springer Verlag.

Felson, M.

- 1998 *Crime and everyday life*. Thousand Oaks, CA: Pine Forge.

Felson, R. B.

- 1997 Routine activities and involvement in violence as actor, witness, or target. *Violence and Victims*, 12, 209-221.

Garofalo, J.

- 1987 Reassessing the lifestyle model of criminal victimization. In M. Gottfredson & T. Hirschi (Eds.), *Positive criminology* (pp. 23-42). Newbury Park, CA: Sage.

Goldstein, P. J.

- 1985 The drugs/violence nexus: A tripartite conceptual framework. *Journal of Drug Issues*, 14, 493-506.

Goldstein, P. J.

- 1989 Drugs and violent crime. In N.A. Weiner & M. E. Wolfgang (Eds.), *Pathways to criminal violence* (pp.16-48). Beverly Hills, CA: Sage.

Goldstein, P. J., Bellucci, P., Spunt, B., & Miller, T.

- 1991 Volume of cocaine use and violence: A comparison between men and women. *Journal of Drug Issues*, 21, 345-367.

Gottfredson, M. R.

- 1984 Victims of crime: The dimensions of risk. *Home Research Study Number 81*. London: Her Majesty's Stationery Office.

Harrison, L. D.

- 1995 The validity of self-reported data on drug use. *Journal of Drug Issues*, 25, 95-111.

Hennekens, C. H., & Burning, J. E.

- 1987 *Epidemiology in medicine*. Boston, MA: Little Brown.

Hindelang, M. J., Gottfredson, M. R., & Garofalo, J.

- 1978 *Victims of personal crime: An empirical foundation for a theory of personal victimization*. Cambridge, MA: Ballinger.

VIOLENT VICTIMIZATION AND THE ROUTINE ACTIVITIES/LIFESTYLE OF ACTIVE DRUG USERS

Hough, M.

1987 Offenders' choice of target: Findings from victim surveys. *Journal of Quantitative Criminology*, 3, 355-369.

Hoyt, D. R., Ryan, K. D., & Cauce, A. M.

1999 Personal victimization in a high-risk environment: Homeless and run away adolescents. *Journal of Research in Crime and Delinquency*, 36, 371-392.

Inciardi, J. A. (Ed.)

1981 *The drugs-crime connection*. Beverly Hills, CA: Sage.

Inciardi, J. A.

1990 The crack-violence connection within a population of hard-core adolescents offenders. In M. De La Rosa, E. Lambert, & B. Gropper (Eds.), *Drugs and violence: Causes, correlates, and consequences* (Research Monograph 103, pp. 92-111). Rockville, MD: U.S. Department of Health and Human Services, National Institute on Drug Abuse.

Inciardi, J. A., & Pottieger, A. E.

1994 Crack cocaine use and street crime. *Journal of Drug Issues*, 24, 273-292.

Jacobs, B. A.

2000 *Robbing drug dealers: Violence beyond the law*. Hawthorne, NY: Aldine de Gruyter.

Jacobs, B. A.

2004 A typology of street criminal retaliation. *Journal of Research in Crime and Delinquency*, 41, 295-323.

Jacobs, B. A., Topalli, V., & Wright, R.

2000 Managing retaliation: Drug robbery and informal sanction threats. *Criminology*, 38, 171-197.

Jensen, G. F., & Brownfield, D.

1986 Gender, lifestyles, and victimization: Beyond routine activity. *Violence and Victims*, 1, 85-99.

Johnson, B. D., Williams, T., Dei, K. A., & Sanabria, H.

1990 Drug abuse in the inner city: Impact on hard-drug users and the community. In M. Tonry & J.Q. Wilson (Eds.), *Drugs and Crime, Volume 13* (pp. 9-67). Chicago, IL: University of Chicago.

Kelley, M. S., & Chitwood, D. D.

2004 Effects of drug treatment for heroin sniffers: A protective factor against moving to injection? *Social Science & Medicine*, 58, 2083-2092.

KOO, CHITWOOD, SÁNCHEZ

- Kelly, R. J.
1983 Addicts and alcoholics as victims. In D. E. J. MacNamara & A. Karmen (Eds.), *Deviants: Victims or Victimizers* (pp.49-76). Beverly Hills, CA: Sage.
- Kleck, G.
1997 *Targeting Guns: Firearms and Their Control*. New York, NY: Aldine de Gruyter.
- Kleck, G., & Gertz, M.
1995 Armed resistance to crime: The prevalence and nature of self-defense with a gun. *Journal of Criminal Law and Criminology*, 86, 150-187.
- Kleck, G., & McElrath, K.
1991 The effects of weaponry on human violence. *Social Forces*, 69, 669-692.
- Klevens, J., Duque, L.F., & Ramirez, C.
2002 The victim-perpetrator overlap and routine activities. *Journal of Interpersonal Violence*, 17, 206-216.
- Lauritsen, J. L., Laub, J. H., & Sampson, R. J.
1992 Conventional and delinquent activities: Implications for the prevention of violent victimization among adolescents. *Violence and Victims*, 7, 91-108.
- Lauritsen, J. L., Sampson, R. J., & Laub, J. H.
1991 The link between offending and victimization among adolescents. *Criminology*, 29, 265-291.
- MacCoun, R., Kilmer, B., & Reuter, P.
2003 Research on drugs-crime linkages: The next generation. In *Toward a drugs and crime research agenda for the 21st century: Special report* (pp. 65-96). Washington DC: U.S. Department of Justice, National Institute of Justice.
- McBride, D.C.
1981 Drugs and violence. In J. A. Inciardi (Ed.), *The Drugs-Crime Connection* (pp. 105-124). Beverly Hill: Sage.
- McBride, D. C., VanderWaal, C. J., & Terry-McElrath, Y. M.
2003 The drugs-crime wars: Past, present, and future directions in theory, policy, and program interventions. In *Toward a drugs and crime research agenda for the 21st century: Special report* (pp. 97-162). Washington DC: U.S. Department of Justice, National Institute of Justice.
- McCoy, V. H., Messiah, S. E., & Yu, Z.
2001 Perpetrators, victims, and observers of violence: Chronic and nonchronic drug users. *Journal of Interpersonal Violence*, 16, 890-909.

VIOLENT VICTIMIZATION AND THE ROUTINE ACTIVITIES/LIFESTYLE OF ACTIVE DRUG USERS

- McElrath, K., Chitwood, D. D., & Comerford, M.
1997 Crime victimization among injection users. *Journal of Drug Issues*, 27, 771-783.
- McElrath, K., Chitwood, D. D., Griffin, D., & Comerford, M.
1994 The consistency of self-reported HIV risk behavior among injection drug users. *American Journal of Public Health*, 84, 1965-1970.
- Menard, S.
2004 Six approaches to calculating standard logistic regression coefficients. *The American Statistician*, 58, 218-223.
- Miethe, T. D., & Meier, R. F.
1990 Opportunity, choice, and criminal victimization: A test of a theoretical model. *Journal of Research in Crime and Delinquency*, 27, 243-266.
- Miethe, T. D., & Meier, R. F.
1994 *Crime and Its Social Context: Toward an Integrated Theory of Offenders, Victims, and Situations*. Albany, NY: State University of New York.
- Mustaine, E. E., & Tewksbury, R.
1998 Predicting risks of larceny theft victimization: A routine activity analysis using refined activity measures. *Criminology*, 36, 829-858.
- National Institute on Drug Abuse
2007 *Drug abuse and addiction: One of America's most challenging public health problems*. Retrieved July 25, 2007, from <http://www.nida.nih.gov/about/welcome/aboutdrugabuse/index.html>.
- Nurco, D. N., Hanlon, T. E., Balter, M. B., Kinlock, T. W., & Slaughter, E.
1991 A classification of narcotic addicts based on type, amount, and severity of crime. *Journal of Drug Issues*, 21, 225-244.
- Nurco, D. N., Kinlock, T. W., & Hanlon, T. E.
1995 The drugs-crime connection. In J. Inciardi & K. McElrath (Eds.), *The American drug scene, an anthology* (pp.220-234). Los Angeles: Roxbury.
- Office of National Drug Control Policy
1995 *National drug control strategy: Executive summary*. Washington DC: Executive Office of the President of the US, Office of National Drug Control Policy.
- Office for Victims of Crime
1996 Drugs and victims of crime. In National victim assistance academy (Chapter 21, Section 6). Washington DC: U.S. Department of Justice, Office for Victims of Crime.
- Ponangi, R., Pintauro, P. N., & Darke, S.
1998 Self-report among injecting drug users: A review. *Drug and Alcohol Dependence*, 51, 253-263.

KOO, CHITWOOD, SÁNCHEZ

- Preble, E., & Casey, J. J.
1969 Taking care of business: The heroin user's life on the street. *International Journal of the Addictions*, 4, 1-24.
- Reiss, A. J., & Roth, A.
1993 *Understanding and preventing violence*. Washington DC: National Academy Press.
- Rosenfeld, R., Jacobs, B., & Wright, R.
2003 Snitching and the code of the street. *British Journal of Criminology*, 43, 291-309.
- Sampson, R. J., & Lauritsen, J. L.
1990 Deviant lifestyles, proximity to crime, and the offender-victim link in personal violence. *Journal of Research and Delinquency*, 27, 110-139.
- Schreck, C. J., & Fisher, B. S.
2004 Specifying the influence of family and peers on violent victimization: Extending routine activities and lifestyle theories. *Journal of Interpersonal Violence*, 19, 1021-1041.
- Schreck, C. J., Fisher, B. S., & Miller, J. M.
2004 The social context of violent victimization: A study of the delinquent effect. *Justice Quarterly*, 21 (1), 23-47.
- Schreck, C. J., Wright, R. A., & Miller, J. M.
2002 A study of individual and situational antecedents of violent victimization. *Justice Quarterly*, 19, 159-180.
- Singer, S. L.
1981 Homogenous victim-offender populations: A review and some research implications. *The Journal of Criminal Law and Criminology*, 72, 779-788.
- Singer, S. L.
1986 Victims of serious violence and their criminal behavior: Subcultural theory and beyond. *Violence and Victims*, 1, 61-70.
- Speckart, G. R., & Anglin, M. D.
1986 Narcotics and crime: A causal modeling approach. *Journal of Quantitative Criminology*, 2, 3-28.
- Stephens, R. C.
1991 *The street addict role*. Albany, NY: State University of New York.
- Stewart, E. A., Elifson, K. W., & Sterk, C. E.
2004 Integrating the general theory of crime into an explanation of violent victimization among female offenders. *Justice Quarterly*, 21, 159-181.

VIOLENT VICTIMIZATION AND THE ROUTINE ACTIVITIES/LIFESTYLE OF ACTIVE DRUG USERS

- Stull, D. D., & Erickson, K. C.
1998 *Doing team ethnography*. Thousand Oaks, CA: Sage.
- Tedeschi, J. T., & Felson, R. B.
1994 *Violence, aggression, and coercive actions*. Washington DC: American Psychological Association.
- Varga, L. M., Chitwood, D. D., & Fernandez, M. I.
2006 Factors associated with skin cleaning prior to injection among drug users. *Journal of Drug Issues*, 35(4), 1015-1030.
- Watters, J. K., & Biernacki, P.
1989 Targeted sampling: Options for the study of hidden populations. *Social Problems*, 36, 416-430.
- Wells, W.
2002 The nature and circumstances of defensive gun use: A context analysis of interpersonal conflict situations involving criminal offenders. *Justice Quarterly*, 19, 127-157.
- Wikstrom, P. H.
1991 *Urban crime, criminals, and victims: The Swedish experience in an Anglo American comparative perspective*. New York, NY: Springer-Verlag.
- Wittebrood, K., & Nieuwbeerta, P.
1999 Wages of sin? The link between offending, lifestyle and violent victimization. *European Journal on Criminal Policy and Research*, 7, 63-80.
- Wittebrood, K., & Nieuwbeerta, P.
2000 Criminal victimization during one's life's course: The effects of previous victimization and patterns of routine activities. *Journal of Research in Crime and Delinquency*, 37, 91-122.
- Zhang, L., Welte, J. W., & Wieczorek, W. F.
2001 Deviant lifestyle and crime victimization. *Journal of Criminal Justice*, 29, 133-143.